

TABLE 1.—*Diseases Less Common in the United States*
(Rate per 100,000)

	U. S. Regis- tration Area	England and Wales
Influenza	26.4	56.7
Erysipelas	1.6	3.0
Tuberculosis (all forms).....	59.5	82.4
Cancer and other malignant tumors..	102.2	152.6
Acute rheumatic fever.....	2.0	3.2
Chronic rheumatism, osteo-arthritis	1.3	8.0
Diseases of the thyroid and para- thyroid glands	3.3	4.6
Anemia	3.4	6.7
Diseases of the heart and circula- tory system	249.8	330.4
Chronic bronchitis.....	1.5	18.4
Bronchopneumonia	29.3	40.8
Asthma	1.5	4.4
Pleurisy	2.1	2.3
Diseases of the buccal cavity, etc.....	4.5	4.9
Ulcer of the stomach and duodenum	6.0	10.2
Hernia, intestinal obstruction	10.0	11.8
Diseases of the skin and cellular tissue	1.7	4.9
Diseases of the bones and organs of locomotion	1.3	2.2

The diseases showing a higher rate in this country are given in Table 2.

TABLE 2.—*Diseases More Common in the United States*
(Rate per 100,000)

	U. S. Regis- tration Area	England and Wales
Typhoid fever	3.5	0.5
Syphilis	8.8	3.3
Diabetes	21.3	15.6
Leukemia and pseudoleukemia.....	3.6	3.2
Alcoholism	2.6	0.2
Diseases of the nervous system.....	104.2	96.8
Lobar pneumonia	36.4	24.4
Appendicitis	14.1	7.6
Cirrhosis of the liver.....	7.4	3.1
Diseases of the genito-urinary system	96.7	57.2

The contrast in local disease frequency is highly instructive. Obviously the diseases which should benefit most under a health insurance system are higher than they are in this country, with the important exception of syphilis, diabetes, lobar pneumonia, appendicitis, cirrhosis of the liver, and diseases of the genito-urinary system. Syphilis and genito-urinary diseases, chiefly chronic nephritis, are affected by race, being much more common among the negro population. If it were not for the negro element, our general and specific death rates would be decidedly more favorable in contrast with the returns for England and Wales. Highly significant are the high rates for rheumatic fever and chronic rheumatism in that these two diseases receive major attention under health insurance. Hence the conclusion that our health system without health insurance is decidedly more favorable than that of England and Wales, and that indications for a further decrease in specific death rates are more pronounced in this country than in England.

In conclusion, I quote an interesting paragraph from a treatise on German medicine by the Hoeber Press, recently published. It is one of a series of volumes on the history of medicine and written by one who evidently speaks with authority on the questions under consideration. Regarding health insurance, he remarks: "The financial status of the medical profession became much weakened in

1883 by the introduction of the compulsory public sickness insurance (Krankenkasse). The physician's salary for the immense amount of work required under this system is most inadequate; the insurance covers a large part of the population: workingmen, clerks and their families, and so on. At first the insured persons did not have the privilege of choosing their physicians, but as a result of the efforts exerted by the 'Verbände der Aerzte Deutschlands,' this has been changed, and now the patients do have the privilege of selecting their physicians." (*Journal of the American Medical Association*, October 27, 1934, page 1330.)

IN CONCLUSION

With this statement I leave the subject which I have tried to present impartially in the light of such evidence available to me, both from German and British sources. To my mind, there can be no other conclusion than that the adoption of compulsory health insurance is not to the interest of the American medical profession, while it is equally opposed to the best interests of the public. I have given much of my time during the last thirty years to a patient study of the facts, and my earlier convictions as regards the inexpediency of compulsory health insurance remain unchanged. I trust that what I have written will be of benefit to the American medical profession and arouse organized opposition to any and every effort to force such an uncalled for system upon the American public, who, in its last analysis, have to bear the burdens of increased taxation and decreased economic efficiency in international trade competition.

THE LURE OF MEDICAL HISTORY*

THE INFLUENCE OF CLAUDE BERNARD ON MEDICINE IN THE UNITED STATES AND ENGLAND†

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II‡

BERNARD'S INFLUENCE ON THE TEACHING OF PHYSIOLOGY IN AMERICAN MEDICAL SCHOOLS

Many of the young American physicians who listened to Bernard's lectures afterwards became professors in medical schools in the United States, but hardly one carried on research along physiological lines. Dr. Henry H. Donaldson of the Wistar Institute of Anatomy gives us a picture of conditions in the 1880's which is particularly interesting because he had his physiology under Dalton: "In the eighties the teaching of medicine,

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with which physiology was mainly associated, was poorly developed. I entered the College of Physicians and Surgeons in New York in 1880. It was then a proprietary school. You paid your fee and were enrolled. You could get your degree in two years by attending endless lectures and taking quizzes with a preceptor. There was a dissecting room, but no laboratories. Dalton held the chair of physiology. He was lucid in his presentation, largely based on French work, for he had been trained in Paris. An exposed heart is the only demonstration I recall." It would appear that even if Dalton did at first attempt to illustrate his lectures with experiments "on living or recently killed animals," this ideal was not being put into practice in the later years of his career as a teacher.

The truth is that for years any one with an M. D. degree was considered qualified to teach any subject in the medical curriculum. An excellent example is shown in the case of Stanford Emerson Chaillé (1830-1911). Descended from a Huguenot refugee and born in Mississippi, he took his A. B. at Harvard in 1851, and his M. D. at the University of Louisiana in 1853. After another year at Harvard, getting his M. A., he embarked on a three-year European tour. He attended Bernard's lectures while in Paris. Upon his return to Louisiana he was for nine years a demonstrator in anatomy, serving, meanwhile, as surgeon in the Confederate Army during the Civil War; for a year he was lecturer in obstetrics, then became professor of physiology and pathological anatomy; for a short time he switched to the professorship of obstetrics, but later returned to the professorship of physiology and pathological anatomy.

It was not until very late in the nineteenth century that American medical schools became centers for investigation. In fact, the American Physiological Society, whose meetings were designed for the very purpose of discussing original investigation, was not formed until 1887. This society was started at the suggestion of Weir Mitchell and he was elected its first president. One is strongly reminded of Bernard's relations to the Société de Biologie of Paris, which he was instrumental in founding in 1848, and of which he later became perpetual president. Among the most active members of the American society was Henry Pickering Bowditch (1840-1911), professor of physiology at Harvard. Bowditch's father had been one of Louis' most enthusiastic followers and had spent the years of 1832-1834 under Louis' guidance at the hospital of La Pitié. Although it is stated that the son "came into relations with Claude Bernard in Paris," he actually did his work abroad in Ludwig's laboratory in Leipzig.

One must admit that almost without exception these young American physicians who continued their medical studies in Paris were really interested in the more practical aspects of medicine. In England this was not the case. There were, of course, many English physicians who listened

to Bernard and returned home to practice. They, too, could follow Bernard's more recent discoveries in their own medical journals, and could even read notes on complete series of lectures, such as those of Dr. Benjamin Ball published in the *London Medical Times and Gazette*, 1860-1861; which, by the way, were translated back into French for use as part of the text of the volume on Operative Physiology published after Bernard's death. But, in contrast to the state of affairs in the United States, the teaching of physiology in the great educational centers of England where the science was being advanced bears the stamp of Bernard's direct influence.

THE TEACHING OF PHYSIOLOGY IN BRITAIN'S MEDICAL SCHOOLS

When William Sharpey (1802-1880) came from Edinburgh to occupy the newly instituted chair of General Anatomy and Physiology at University College, London, in 1836, he had had training chiefly in microscopic anatomy. Sir Edward Sharpey-Schafer makes the following statement regarding Sharpey's teaching: "It is true that his lectures were largely anatomical, that he carried out no physiological researches, that he performed no experiments on muscle and nerve other than those which had been performed by Galvani half a century earlier, that he never possessed a kymograph (the working of which he would illustrate to his class by revolving on the lecture table what Michael Foster called his 'dear old hat'), but he had a remarkable grasp of the problems of physiology, and a singular power of imparting his conclusions to his audience."

Sharpey, wishing to do more to encourage the science of physiology in England, induced a young physician, George Harley (1829-1896), to start in 1855 a class in Practical Physiology at University College. Why should he have chosen this particular young man? Like Sharpey, Harley had taken his M. D. at Edinburgh (1850), but during two years spent in Paris he had received special training in physiology under Magendie and Bernard. It was to this young man that Bernard referred when he spoke of "M. Harlay (*sic*), who at one time took my course." Under Bernard's direction Harley worked on the effect of injecting irritating substances into the portal vein. This was the period of intensive work in Bernard's laboratory on the glycogenic function of the liver. The impetus which Harley received is seen in his two treatises on the liver, the first written in 1853, the second twenty years later.

About the time that Harley was introducing Bernard to University College, London, Frederick William Pavy (1829-1911), was doing the same at Guy's Hospital. Pavy, after taking his M. B. with honors at the University of London in 1852, followed the custom and left for further study in Paris. There were so many English medical students in Paris in the fifties that they had organized the English Medical Society of Paris, which met weekly in rooms near the Luxembourg to read papers and report on interesting cases.

Both Harley and Pavy were officers in this society. Pavy's experiments under Bernard's direction on the mechanism of the destruction of sugar in the organism were characterized by the master in one of his lectures at the Collège de France as "très intéressantes." Pavy was so profoundly influenced by Bernard that he, too, devoted his life to the subject so intensively worked on by the master, viz., diabetes, and was even said to imitate him in the manner of his lectures. Two of his books are "Researches on the Nature and Treatment of Diabetes" (1862) and "The Physiology of the Carbohydrates, Their Application as Food and Relation to Diabetes" (1894). Pavy's later experimental work seems to have been largely an attempt to improve on Bernard's method of sugar estimation. He disagreed with Bernard on the subject of glycogenesis, for he did not get the same results as Bernard had done in determining the relative amounts of sugar in the blood of the portal and hepatic veins. One of the few times Bernard attacked an adversary with sarcasm was when he refuted "the ideas held particularly by M. Pavy, an English physiologist, who began his experiments on animal sugar in my very laboratory at the Collège de France," that the appearance of sugar in the liver is a postmortem phenomenon. "M. Pavy's theory is a reflection of the old vitalistic doctrines and is at the same time obscure and inexact. . . . M. Pavy would thus be led to consider the diabetic patient as a walking corpse, a conception which is certainly bizarre!"

Harley did not long retain his lectureship in Practical Physiology at University College; he was soon followed by Michael Foster, a pupil of Sharpey, who had taken his M. D. at the University of London in 1859. Foster, although he, too, had followed the custom and spent a year in Paris, did not attend Bernard's courses; nevertheless, it is claimed that the greatest influences in Foster's life were Sharpey, Bernard, and Huxley. The greatness of his esteem for the French physiologist is expressed in the dedication of his well-known biography of Bernard: "To the physiologists of France, both to those who had the happiness to know Claude Bernard in the flesh, and to those who, like myself, never saw his face, this little sketch is dedicated in the hope that as he has been to me a father in our common science, so I may be allowed to look upon them as brethren."

When Foster left London to accept the chair of Physiology at Cambridge, a clever clinician, who, under the influence of Sharpey, had in 1866 carried out some physiological experiments on respiration at University College, followed him as lecturer in Practical Physiology, with the understanding that he would have the chair of Physiology on Sharpey's retirement. This clinician was Dr. John Scott Burdon-Sanderson. Here was another Edinburgh graduate in medicine (1851), who had joined the group in Paris immediately after taking his degree. His diary of this period gives us brief pictures of his life there, now attending lectures and laboratories with students whom he had known at home, Harley, Pavy, and

others, now reading before the Paris Medical Society a paper "which was not understood." On March 1, 1852, there is the following entry in the diary: "Went with Marcet to Bernard's, who showed us much attention." This is followed the next day by "Went with Harley and Mason to Bernard, who introduced us to Magendie!" On March 13, 1851, occurs the entry, "Was with Bernard performing several experiments." Among other entries scattered along the diary are the following: "Performed operation for obtaining pancreatic juice on a rabbit; did not succeed in introducing the cannula"; "injected a pigeon"; "operated unsuccessfully on a dog for pancreatic juice"; "operated successfully on pancreatic duct," etc. A more elaborate notebook of this date in his handwriting gives a synopsis of Bernard's experimental lectures, and treats some subjects in much detail, notably, the rôle and nature of glycogen and the phenomena of diabetes. In fact, he "seems to have fallen under the magnetic spell cast by the intellectual personality of the great physiologist." His veneration for Bernard lasted throughout his life, and in later years he used to say, pointing to the bust which stood upon the shelf above his study table, that Bernard was the most inspiring teacher, the most profound scientific thinker and the most remarkable experimental physiologist that he had ever known." In 1883 Burdon-Sanderson left London to accept the chair of Physiology at Oxford.

Thus, at London, Cambridge, and Oxford, the tradition of Bernard's teaching was carried on, and carried on so effectively that at the beginning of this century preëminence in physiology passed from France to England.

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CLINICAL NOTES AND CASE REPORTS

LYMPHOPATHIA VENEREA

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TWO cases of local (San Francisco) origin of Lymphopathia venerea (Lymphogranuloma inguinale), conjugal, are herewith reported.

CASE 1 (Husband).—A. P., an Italian male laborer, age thirty-two, consulted one of us (Diepenbrock) at his office on December 6, 1929, on account of a painful swelling in the left groin, producing difficulty in walking, chilly sensations, profuse perspiration, and fever. About ten days previously he observed a small painless papular lesion on the glans penis, which disappeared in a few days. Three or four days later pain and tenderness developed in the left groin, followed by a small, tender swelling, which grew larger, until finally he became disabled. He admitted coition during the middle part of November with an unknown person picked up on the streets. He also admitted subsequent coitus with his wife who, at the time, was about eight and one-